

## IN THE CLAIMS

1. (Withdrawn) A method of fabricating a cathode, comprising:  
depositing a carbon material on a portion of a titanium substrate;  
annealing the carbon material and the substrate in a heated atmosphere  
at a reduced pressure to form an intermediate titanium carbide layer between the  
deposited carbon material and the titanium substrate; and  
removing remaining carbon material to expose the intermediate titanium  
carbide surface as an active cathode material.
2. (Withdrawn) A method according to claim 1, further comprising the step of  
post-processing the titanium carbide layer.
3. (Withdrawn) A method according to claim 1, wherein the depositing step is  
performed by at least one of: an ink jet printing process, a thermal transfer  
printing process, a hot stamping process, a dye sublimation process, a screen  
printing process, a chemical vapor deposition process, a sputtering process, a  
manually painting process.
4. (Withdrawn) A method according to claim 3, wherein the ink jet printing  
process comprises a thermal ink jet printing process.
5. (Withdrawn) A method according to claim 3, wherein the ink jet printing  
process comprises a piezoelectric ink jet printing process.
6. (Withdrawn) A method according to claim 3, wherein the ink jet printing  
process comprises an acoustic ink jet printing process.
7. (Withdrawn) A method according to claim 1, wherein the carbon  
comprises substantially pure graphite.

8. (Withdrawn) A method according to claim 7, wherein the substantially pure graphite comprises a plurality of granules of graphite powder.
9. (Withdrawn) A method according to claim 1, wherein the removing step comprises a manual removal of the carbon.
10. (Withdrawn) A method according to claim 9, wherein the removing step comprises one of: abrading, rubbing, scraping, scuffing, chafing, filing, grating, brushing, polishing, wiping, or sanding.
11. (Withdrawn) A method according to claim 1, wherein the removing step comprises a machinery assisted removal step.
12. (Withdrawn) A method according to claim 1, wherein the machinery assisted step comprises one of: sanding, grinding, buffing, pneumatically-blasting with particulate material, polishing.
13. (Withdrawn) A method according to claim 1, wherein the titanium substrate comprises an interior portion of an electrochemical cell.
14. (Withdrawn) A method according to claim 13, wherein the electrochemical cell comprises a capacitor.
15. (Withdrawn) A method according to claim 14, wherein the capacitor comprises a tantalum anode spaced from the cathode and wherein the tantalum anode and the cathode are in fluid communication with an electrolyte.
16. (Withdrawn) A method according to claim 15, wherein the capacitor is disposed within a hermetically-sealed implantable medical device.

17. (Withdrawn) A method according to claim 16, wherein the implantable medical device comprise an implantable cardioverter-defibrillator.
18. (Withdrawn) A method according to claim 1, wherein the titanium substrate comprises a substantially flat portion of titanium and at least a part of the surface of said portion is roughened.
19. (Withdrawn) A method according to claim 1, further comprising activating the titanium carbide layer.
20. (Withdrawn) A method according to claim 1, wherein the carbon material comprises a carbon nanotube material.
21. (Withdrawn) A method according to claim 20, wherein the carbon nanotube material comprises a single-walled carbon nanotube material.
22. (Withdrawn) A method according to claim 3, wherein the chemical vapor deposition process comprises a plasma-enhanced chemical vapor deposition process.
23. (Currently amended) A carbide cathode associated with an implantable medical device, consisting of:  
a titanium substrate; and  
a layer of titanium carbide disposed on a surface portion of said substrate, the carbide formed from carbonaceous material.
24. (Original) A cathode according to claim 23, wherein the titanium substrate comprises a substantially flat sheet of titanium.

25. (Original) A cathode according to claim 23, wherein the titanium substrate comprises an interior portion of a casing for a capacitor.

26. (Original) A cathode according to claim 25, wherein the capacitor further comprises:

a valve metal anode spaced from the cathode;

a porous separator material disposed between the valve metal anode and the cathode; and

a liquid electrolyte in fluid communication with both the valve metal anode and the cathode.

27. (Original) A cathode according to claim 26, wherein the valve metal anode comprises a tantalum anode slug.

28. (Original) A cathode according to claim 27, wherein the capacitor is operatively coupled within an implantable medical device.

29. (Original) A cathode according to claim 28, wherein the implantable medical device comprises a cardioverter-defibrillator.

30. (Original) A cathode according to claim 29, further comprising a pair of capacitors operatively coupled within the cardioverter-defibrillator.

31. (New) A carbide cathode associated with an implantable medical device, consisting of:

a titanium substrate; and

a layer of titanium carbide disposed on a surface portion of said substrate, wherein the carbide formed from graphite.

32. (New) A carbide cathode associated with an implantable medical device, consisting of:
- a titanium substrate; and
  - a layer of titanium carbide disposed on a surface portion of said substrate, the carbide formed from carbonaceous material,
- wherein a portion of the carbonaceous material remains at the layer of the titanium carbide.